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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,263	07/18/2006	Nobutaka Nakajima	39951	8493

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PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER	
ELVE, MARIA ALEXANDRA	
ART UNIT	**PAPER NUMBER**
3742	
MAIL DATE	**DELIVERY MODE**
10/14/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,263	NAKAJIMA ET AL.	
	Examiner	Art Unit	
	M. Alexandra Elve	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4 and 6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4 and 6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiser (USPN 6,242,113) in view of Kudo et al. (USPN 4,400,209) and Kawaguchi et al. (JP 11-170084).

Kiser discloses a welding alloy, weldments (i.e. filler) and so forth. the alloy is nickel, chromium and iron based and contains the following: C (0.005-0.05), Si (<0.50), Mn (<1.0), Cr (27-31.5), Nb (0.60-0.95), Ta (<0.10), Fe (7-11), Al (0.01-0.25), Ti (0.01-0.35), P (<0.02), S (<0.01), B (<0.01), Zr (<0.10) and balance Ni.

Kiser does not teach the presence of vanadium, nitrogen, calcium, magnesium, rare earths or oxygen; however, these elements do not specifically have to be present.

Kudo et al. discloses a high nickel, chromium and iron alloy. the composition follows: C (< 0.1), Si (<1.0), Mn (<2.0), Cr (22.5-40), Nb, Ta, Ti, Zr and V in amounts of one or more to a total amount of (0.5-4.0), P(<0.003), S (<0.005), N (0-0.30), Ca (0-0.10), Mg (0-0.10), rare earths (0-0.10), Fe (balance) and Ni (25-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use vanadium, calcium, magnesium and rare earths as taught by Kudo et al. in the Kiser welding alloy because rare earths, Ca and Mg are known for improving

ductility (hot workability), vanadium forms nickel intermetallics for hardening and nitrogen in controlled amounts add strengthening to the alloy matrix.

Kawaguchi et al. discloses a filler metal for Ni based, high Cr alloys. the filler metal contains: C (<0.04), Si (0.1-0.5), Mn (0.2-1), Cr (28-31.5), Nb (<0.1), Fe (7-11), Al (0.5-1.1), Ti (0.5-1), P (<0.02), S (<0.01), Nb (<0.1), V (0.05-0.5), N (<0.03), O (<0.1) and balance Ni.

It would have been obvious to one of ordinary skill in the art at the time of the invention to minimize the amount of oxygen in the nickel based alloy as taught by Kawaguchi et al. because it is well known that nickel preferentially forms oxides whose presence weakens the alloy matrix.

The exact amounts of each of the constituents as presently claimed are not disclosed in the prior art; however, the prior art compositions closely approximates or overlap applicant's claimed composition. It has been held that one of ordinary skill in the art at the time of the invention would have considered the claimed compositions to have been obvious because close approximation or overlapping ranges in a composition is considered to establish a prima facie case of obviousness. See In re Malagari, 182 USPQ 549, Titanium Metals v. Banner 227 USPQ 773, In re Nehrenberg 126 USPQ 383.

Response to Arguments

Applicant's arguments filed 6/15/09 have been fully considered but they are not persuasive.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, all references are drawn to nickel based weld materials.

Applicant argues that Kiser does not overlap the claim limitations. The examiner respectfully notes that Kiser closely approximates the claim limitations. The exact amounts of each of the constituents as presently claimed are not disclosed in the prior art; however, the prior art compositions closely approximates or overlap applicant's claimed composition. It has been held that one of ordinary skill in the art at the time of the invention would have considered the claimed compositions to have been obvious

because close approximation or overlapping ranges in a composition is considered to establish a prima facie case of obviousness. See In re Malagari, 182 USPQ 549, Titanium Metals v. Banner 227 USPQ 773, In re Nehrenberg 126 USPQ 383.

Applicant argues that Kiser and Kudo disclose copper, tungsten, molybdenum and cobalt; Kudo also discloses yttrium, and Kawaguchi discloses copper, tungsten and molybdenum which are not included in the present invention. The examiner respectfully notes that applicant's claims are written in open language and hence do not preclude the presence of copper, tungsten, molybdenum and/or yttrium.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 7:30-4:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 9, 2009.

/M. Alexandra Elve/
Primary Examiner, Art Unit 3742